



HMI and industrial PCs

HMI and industrial PCs are the key to the efficient operation and monitoring of your systems and machines. You can work with a portable Bluetooth tablet PC directly on site – or design detailed user interfaces as the interface to your system using a powerful HMI device.

Industrial PCs and HMIs from Phoenix Contact are so versatile and flexible that they do not present any restrictions for your operation and monitoring concepts. Visu+ and WebVisit are the corresponding visualization software tools. In addition to the wide range of products, we also provide worldwide service.






HMIs






Human-machine interfaces, or HMIs for short, represent cost-effective automation based on efficient input and monitoring. Depending on your requirements, you can select devices for basic, standard or high-end applications. Whether directly on site, centrally in the control center, high performance or multifunctional: it is you who determines the features of the HMIs.






Industrial PCs






Industrial PCs, or IPCs for short, combine the computing capacity of modern processors with the robustness and reliability of industrial components. Together with the right software, IPCs are efficient and versatile solutions for controlling, operating, and monitoring systems and machines.

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HMI for maritime applications	126
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Industrial PCs	
Box PCs	128
Monitors with touch function	132
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Minitouch		Web panels			
					
Type	TD 1030T	WP 04T WP 06T	WP 10T WP 15T	WP 07T/WS WP 09T/WS	WP 06T/XC WP 07T/XC
Description	2.8" color TFT display	3.5"/5.7" color TFT display	10.4" ... 15" color TFT display	Widescreen 7" ... 9" color TFT display	Outdoor 5.7" ... 7" color TFT display
Page	120	120	121	121	121

Touch panels					
					
Type	TP 3057M ...	TP 3xxxT ...	TP 5xxxT	TP 5xxxC	TP .../M 201
Description	5.7" monochrome display PROFIBUS DP, MPI, CANopen® or serial interface as an option	5.7" ... 12.1" color TFT display	12.1" ... 17" color TFT display Intel Atom CPU	12.1" ... 17" color TFT display Celeron M CPU	7" ... 15" display Touch panel for maritime applications
Page	122	122	124	124	126

Box PCs					
					
Type	VL BPC MINI	VL BPC 1000	VL BPC 1001	VALUELINE IPC	VL IPC P7000
Description	Box PC for DIN rail mounting	Box PC for DIN rail mounting	Box PC for DIN rail mounting	Configurable box PC for wall mounting without/with PCI extension	Configurable box PC for wall mounting
Page	128	129	129	130	131

Monitors with touch function					
					
Type	VL FPM 12(U)	VL FPM 15(U)	VL FPM 17(U)	VL FPM 19U	Accessories
Description	12.1" color TFT display, optional USB port on front	15" color TFT display, optional USB port on front	17" color TFT display, optional USB port on front	19" color TFT display, with USB port on front	Transparent, silicon-free protective foil for 15" touch screen
Page	132	133	133	133	133

Panel PCs

					
Type	EL PPC7 1000 EL PPC9 1000		VALUELINE IPC		Accessories
Description	Configurable panel PC with 7" ... 9" widescreen display		Configurable panel PC with 12" ... 15.4" widescreen display		Mounting kit, protective foil for 15" touch screen
Page	134		134		134

IP65 panel PCs





					
Type	DL PPC15 1000	DL PPC15M 1000	VMT 30xx	VMT 30xx EXP SUN	Accessories
Description	Configurable panel PC with IP65 protection with touch screen, 15" display	Configurable panel PC with IP65 protection with multi-touch screen, 15" display	Configurable panel PC with IP65 protection with touch screen, 8" ... 15" display	Panel PC with IP65 protection with touch screen, 10.4" ... 12.1" sunlight readable display	Brackets, external power supply unit
Page	138	139	140	141	140

Tablet PCs

		
Type	TPC 6013...	Accessories
Description	Mobile tablet PC with touch screen, 13.3" display	3-point belt, hand strap, touch pen, mechanical docking with lock, replacement battery
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Software

Software PLC

				
Type	WEBVISIT ...	VISU+ 2 ...	PORTICO	PC WORK RT BASIC
Description	Development software for all web panels	Development software for all touch panels and operator terminals	Remote control of networked IPCs	The software PLC transforms your PC into a controller
Page	See "Software" section			See "Controllers" section

Web panel and minitouch devices are inexpensive operator panels for basic operation and monitoring tasks.

Features:

- Tailor-made for class 100 compact controllers
- Fast startup thanks to plug & play
- **Minitouch:** alphanumeric 4-color display
- **Web panel:** full graphic color display for clear representation
- Quick and user-friendly representation of your control variables using PC Worx EXPRESS and WebVisit software tools
- Multi-user operation thanks to server/client structure
- Easy device replacement, as the project is saved on the PLC



Minitouch
7.1 cm (2.8") TFT color display



Web panel
8.9 cm (3.5")/14.5 cm (5.7")
TFT color display



Notes:

1) EMC: Class A product, see page 553

Technical data

Display data	
Display	7.1 cm/2.8" TFT active
Monitor resolution	320 x 240 Pixel (QVGA)
Display lighting type	LED
Brightness	280 cd/m ² , typical (adjustable)
Display backlight MTBF	40000 h
Color spectrum	4 colors
Touch screen	Resistive industrial touch screen
Computer data	
Operating systems	Keil RTX (RTOS)
Processor	Cortex™-M3 120 MHz
Main memory	96 kB SRAM
Data memory	512 kB flash memory
Interfaces	None
External dimensions	
Width	96 mm
Height	72 mm
Depth	60 mm
Installation dimensions	
Width	92.8 mm
Height	68.7 mm
Installation depth	53.5 mm
General data	
Degree of protection	IP54 (front), IP20 (back)
Ambient temperature (operation)	0 °C ... 50 °C
Mounting type	Installation in front plate
Vibration (operation)	DIN EN 60068-2-6
Shock	DIN EN 60068-2-27

Technical data

WP 04T ¹⁾	WP 06T ¹⁾
8.9 cm/3.5" TFT active	14.5 cm/5.7" TFT active
320 x 240 Pixel (QVGA)	320 x 240 Pixel (QVGA)
LED	LED
350 cd/m ² , typical (adjustable)	380 cd/m ² , typical (adjustable)
40000 h	40000 h
65,536 colors	65,536 colors
Resistive industrial touch screen	Resistive industrial touch screen
Windows CE 5.0	Windows CE 5.0
RISC ARM9™ CPU ; 200 MHz	RISC ARM9™ CPU ; 200 MHz
64 Mbyte SDRAM	64 Mbyte SDRAM
32 Mbyte flash memory	32 Mbyte flash memory
2x USB Host 2.0	2x USB Host 2.0
120 mm	168 mm
90 mm	126 mm
5 mm	
112 mm	160 mm
82 mm	118 mm
35 mm	42 mm
IP65 (front), IP20 (back)	IP65 (front), IP20 (back)
0 °C ... 50 °C	0 °C ... 50 °C
Installation in front plate	Installation in front plate
DIN EN 60068-2-6	DIN EN 60068-2-6
DIN EN 60068-2-27	DIN EN 60068-2-27

Ordering data

Description	Type	Order No.	Pcs. / Pkt.
Minitouch - 7.1 cm (2.8") display	TD 1030T	2701257	1
Web panel - 8.9 cm (3.5") display - 14.5 cm (5.7") display - 26.4 cm (10.5") display - 38.1 cm (15") display			
Widescreen web panel - 17.8 cm (7") display - 22.9 cm (9") display			
Web panel, extended temperature range - 14.5 cm (5.7") display - 17.8 cm (7") display			

Ordering data

Type	Order No.	Pcs. / Pkt.
WP 04T¹⁾ WP 06T¹⁾	2913632 2913645	1 1



Web panel
26.4 cm (10.4")/38.1 cm (15")
TFT color display



Widescreen web panel
17.8 cm (7")/22.9 cm (9")
TFT color display



Outdoor web panel
14.5 cm (5.7")/17.8 cm (7")
TFT color display



Technical data	
WP 10T ¹⁾	WP 15T ¹⁾
26.4 cm/10.4" TFT active 800 x 600 Pixel (SVGA)	38.1 cm/15" TFT active 1024 x 768 Pixel (XGA)
LED	
330 cd/m ²	480 cd/m ²
50000 h	
65,536 colors	
Resistive industrial touch screen	
Windows CE 5.0	
RISC ARM9™ CPU ; 200 MHz	
64 Mbyte SDRAM	
32 Mbyte flash memory	
2x USB Host 2.0	
295 mm	400 mm
220 mm	329 mm
5 mm	
287 mm	374 mm
212 mm	303 mm
55 mm	60 mm
IP65 (front), IP20 (back)	
0 °C ... 50 °C	
Installation in front plate	
DIN EN 60068-2-6	
DIN EN 60068-2-27	

Ordering data		
Type	Order No.	Pcs. / Pkt.
WP 10T ¹⁾	2700934	1
WP 15T ¹⁾	2700935	1

Technical data	
WP 07T/WS ¹⁾	WP 09T/WS ¹⁾
17.8 cm/7" TFT active 800 x 480 Pixel (WVGA)	22.9 cm/9" TFT active 800 x 480 Pixel (WVGA)
CCFL	
400 cd/m ² , typical (adjustable)	240 cd/m ² , typical (adjustable)
50000 h	
65,536 colors	
Resistive industrial touch screen	
Windows CE 5.0	
RISC ARM9™ CPU ; 200 MHz	
64 Mbyte SDRAM	
32 Mbyte flash memory	
2x USB Host 2.0	
203 mm	260 mm
147 mm	172 mm
5 mm	
195 mm	252 mm
139 mm	164 mm
54 mm	
IP65 (front), IP20 (back)	
0 °C ... 50 °C	
Installation in front plate	
DIN EN 60068-2-6	
DIN EN 60068-2-27	

Ordering data		
Type	Order No.	Pcs. / Pkt.
WP 07T/WS ¹⁾	2700307	1
WP 09T/WS ¹⁾	2700309	1

Technical data	
WP 06T/XC	WP 07T/XC
14.5 cm/5.7" TFT active 320 x 240 Pixel (QVGA)	17.8 cm/7" TFT active 800 x 480 Pixel (WVGA)
LED	
400 cd/m ² , typical (adjustable)	350 cd/m ² , typical (adjustable)
40000 h	
65,536 colors	
Resistive industrial touch screen	
Windows CE 5.0	
RISC ARM9™ CPU ; 184 MHz	
128 Mbyte SDRAM	
64 Mbyte flash memory	
2x USB Host 2.0	
195 mm	234 mm
153 mm	173 mm
5 mm	
161 mm	200 mm
119 mm	140 mm
42 mm	
IP67 (front), IP20 (back)	
-20 °C ... 70 °C	
Installation in front plate	
DIN EN 60068-2-6	
DIN EN 60068-2-27	

Ordering data		
Type	Order No.	Pcs. / Pkt.
WP 06T/XC	2701555	1
WP 07T/XC	2701556	1

Touch panels

Thanks to the numerous interfaces, drivers, and display sizes, touch panels from Phoenix Contact can be optimally adapted to your requirements. Licenses are already included for the Visu+ software and the OPC server.

Your advantages:

- Save costs and increase service life, thanks to LED backlighting that can be adjusted directly via buttons
- Increase system availability, thanks to temperature and voltage monitoring
- Quick response in the event of an alarm with integrated buzzer (85 dB)
- Global use: additional fonts are easy to install
- Available with PROFIBUS DP, MPI, CANopen®, and serial interface as an option
- Expansion with external flash mass storage



14.5 cm (5.7") monochrome display



14.5 cm (5.7") TFT color display



Notes:
1) EMC: Class A product, see page 553

Display data
Display
Monitor resolution
Display lighting type
Brightness
Display backlight MTBF
Color spectrum
Touch screen
Computer data
Operating systems
Processor
Main memory
Data memory
Interfaces
External dimensions
Width
Height
Depth
Installation dimensions
Width
Height
Installation depth
General data
Degree of protection
Ambient temperature (operation)
Mounting type
Vibration (operation)
Shock

Technical data
14.5 cm/5.7" TFT active
320 x 240 Pixel (QVGA)
LED
250 cd/m ² , typical (adjustable)
40000 h
256-step grayscale
Resistive industrial touch screen
Computer data
Windows CE 6.0
Xscale® PXA320, 806 MHz
128 Mbyte SDRAM
1 GB flash memory
2x USB Host 1.1, 1x Compact Flash®
External dimensions
203 mm
147 mm
5 mm
Installation dimensions
195 mm
139 mm
49 mm
55 mm, approximately with fieldbus interface
General data
IP65 (front), IP20 (back)
0 °C ... 50 °C
Installation in front plate
DIN EN 60068-2-6
DIN EN 60068-2-27

Technical data
14.5 cm/5.7" TFT active
320 x 240 Pixel (QVGA)
LED
350 cd/m ² , typical (adjustable)
40000 h
65,536 colors
Resistive industrial touch screen
Computer data
Windows CE 6.0
Xscale® PXA320, 806 MHz
128 Mbyte SDRAM
1 GB flash memory
2x USB Host 1.1, 1x Compact Flash®
External dimensions
203 mm
147 mm
5 mm
Installation dimensions
195 mm
139 mm
49 mm
55 mm, approximately with fieldbus interface
General data
IP65 (front), IP20 (back)
0 °C ... 50 °C
Installation in front plate
DIN EN 60068-2-6
DIN EN 60068-2-27

Description
Touch panel with graphics-capable TFT display, 1 x Ethernet, 2 x USB, and integrated runtime of the Visu+ visualization software
- Without fieldbus interface
Touch panel with graphics-capable TFT display, 1 x Ethernet, 2 x USB, and integrated runtime of the Visu+ visualization software
- PROFIBUS DP interface
- MPI interface
- CANopen® interface
- RS-232 interface

Ordering data		
Type	Order No.	Pcs. / Pkt.
TP 3057M ¹⁾	2700901	1
TP 3057M PB ¹⁾	2700902	1
TP 3057M MPI ¹⁾	2700903	1
TP 3057M CO ¹⁾	2700904	1
TP 3057M SER ¹⁾	2700905	1

Ordering data		
Type	Order No.	Pcs. / Pkt.
TP 3057T ¹⁾	2700906	1
TP 3057T PB ¹⁾	2700907	1
TP 3057T MPI ¹⁾	2700908	1
TP 3057T CO ¹⁾	2700909	1
TP 3057T SER ¹⁾	2700910	1

Accessories
Mounting kit, including hardware for installation
- Panel installation

Accessories		
HMI SCB MOUNTING KIT 6	2701385	1

Accessories		
HMI SCB MOUNTING KIT 6	2701385	1



17.8 cm (7") TFT color display



26.4 cm (10.4") TFT color display



30.7 cm (12.1") TFT color display



Technical data
17.8 cm/7" TFT active
800 x 480 Pixel (WVGA)
LED
350 cd/m ² , typical (adjustable)
40000 h
65,536 colors
Resistive industrial touch screen
Windows CE 6.0
Xscale® PXA320, 806 MHz
128 Mbyte SDRAM
1 GB flash memory
2x USB Host 1.1, 1x Compact Flash®
203 mm
147 mm
5 mm
195 mm
139 mm
49 mm
55 mm, approximately with fieldbus interface
IP65 (front), IP20 (back)
0 °C ... 50 °C
Installation in front plate
DIN EN 60068-2-6
DIN EN 60068-2-27

Ordering data		
Type	Order No.	Pcs. / Pkt.
TP 3070T ¹⁾	2700911	1
TP 3070T PB ¹⁾	2700912	1
TP 3070T MPI ¹⁾	2700913	1
TP 3070T CO ¹⁾	2700914	1
TP 3070T SER ¹⁾	2700915	1

Accessories		
HMI SCB MOUNTING KIT 6	2701385	1

Technical data
26.4 cm/10.4" TFT active
800 x 600 Pixel (SVGA)
LED
350 cd/m ² , typical (adjustable)
50000 h
65,536 colors
Resistive industrial touch screen
Windows CE 6.0
Xscale® PXA320, 806 MHz
128 Mbyte SDRAM
1 GB flash memory
2x USB Host 1.1, 1x Compact Flash®
295 mm
220 mm
5 mm
287 mm
212 mm
56 mm
61 mm, approximately with fieldbus interface
IP65 (front), IP20 (back)
0 °C ... 50 °C
Installation in front plate
DIN EN 60068-2-6
DIN EN 60068-2-27

Ordering data		
Type	Order No.	Pcs. / Pkt.
TP 3105T ¹⁾	2700916	1
TP 3105T PB ¹⁾	2700917	1
TP 3105T MPI ¹⁾	2700918	1
TP 3105T CO ¹⁾	2700919	1
TP 3105T SER ¹⁾	2700920	1

Accessories		
HMI SCB MOUNTING KIT 8	2701387	1

Technical data
30.7 cm/12.1" TFT active
800 x 600 Pixel (SVGA)
LED
300 cd/m ² , typical (adjustable)
50000 h
65,536 colors
Resistive industrial touch screen
Windows CE 6.0
Xscale® PXA320, 806 MHz
128 Mbyte SDRAM
1 GB flash memory
2x USB Host 1.1, 1x Compact Flash®
340 mm
270 mm
5 mm
315 mm
243.5 mm
60 mm
65 mm, approximately with fieldbus interface
IP65 (front), IP20 (back)
0 °C ... 50 °C
Installation in front plate
DIN EN 60068-2-6
DIN EN 60068-2-27

Ordering data		
Type	Order No.	Pcs. / Pkt.
TP 3121T ¹⁾	2700921	1
TP 3121T PB ¹⁾	2700922	1
TP 3121T MPI ¹⁾	2700923	1
TP 3121T CO ¹⁾	2700924	1
TP 3121T SER ¹⁾	2700925	1

Accessories		
HMI SCB MOUNTING KIT 8	2701387	1

Powerful touch panels with PC platform are the ideal solution for graphics-intensive visualization applications. The devices in the 5000 series are ideal for use in large networked machines and systems. Thanks to technical properties such as the X86 platform with Windows CE, the HMIs offer a fair price/performance ratio. You can therefore even implement intelligent operating concepts in complex systems.

Additional features:

- Cost-effective solution, since there are no additional costs for SCADA runtime: unlimited runtime license for VISU+ RT and AX OPC SERVER included
- Ethernet-based drivers available for connection to third-party systems
- Additional monitor connection possible by using the VGA interface (multi-user function)
- Remote access to user interface via web-capable devices thanks to Visu+ web client functionality
- Easy to maintain thanks to external data backup and event-oriented e-mail/SMS messaging
- High system availability thanks to OPC with redundancy support
- Particularly reliable thanks to integrated connection for uninterruptible power supply (UPS)



30.7 cm (12.1") TFT color display

Display data
Display
Monitor resolution
Display lighting type
Brightness
Display backlight MTBF
Color spectrum
Touch screen
Computer data
Operating systems
Processor
Main memory
Data memory
Interfaces
External dimensions
Width
Height
Depth
Installation dimensions
Width
Height
Installation depth
General data
Degree of protection
Ambient temperature (operation)
Mounting type
Vibration (operation)
Shock

Description
Touch panel
- Atom 1.6 GHz
- Celeron M 1.01 GHz processor

Stylus for touch screens
USB flash memory
Mounting kit, including hardware for installation
- Panel installation

Technical data	
TP 5120T	TP 5120C
30.7 cm/12.1" TFT active	
800 x 600 Pixel (SVGA)	
CCFL	
400 cd/m², typical (adjustable)	
50000 h	
65,536 colors	
Resistive industrial touch screen	
Windows CE 6.0	
Atom™ 1.6 GHz	Celeron® M 1.01 GHz
1 GB DDR	
CompactFlash®, 2 GB	
COM 1 (RS-232), 1x VGA, 4x USB, 2x CompactFlash®	
365 mm	
282 mm	
10 mm	
334 mm	
253 mm	
94 mm	
IP65 (front), IP20 (back)	
-20 °C ... 55 °C	
Installation in front plate	
DIN EN 60068-2-6	
15g, 11 ms in accordance with IEC 60068-2-27	

Ordering data		
Type	Order No.	Pcs. / Pkt.
TP 5120T	2700621	1
TP 5120C	2701719	1

Accessories		
TOUCH PEN	2701379	1
2 GB USB STICK	2701382	1
VL PANEL MOUNTING KIT	2913159	1



38.1 cm (15") color TFT display



43.2 cm (17") TFT color display

Technical data

TP 5150T TP 5150C

38.1 cm/15" TFT active
1024 x 768 Pixel (XGA)
CCFL
350 cd/m², typical (adjustable)
50000 h
65,536 colors
Resistive industrial touch screen

Windows CE 6.0

Atom™ 1.6 GHz Celeron® M 1.01 GHz

1 GB DDR

CompactFlash®, 2 GB

COM 1 (RS-232), 1x VGA, 4x USB, 2x CompactFlash®

410 mm
309 mm
10 mm

386.6 mm
285 mm
96 mm

IP65 (front), IP20 (back)

-20 °C ... 55 °C

Installation in front plate

DIN EN 60068-2-6

15g, 11 ms in accordance with IEC 60068-2-27

Ordering data

Type	Order No.	Pcs. / Pkt.
TP 5150T	2700622	1
TP 5150C	2701720	1

Accessories

TOUCH PEN	2701379	1
2 GB USB STICK	2701382	1
VL PANEL MOUNTING KIT	2913159	1

Technical data

TP 5170T TP 5170C

43.2 cm/17" TFT active
1280 x 1024 Pixel (SXGA)
CCFL
350 cd/m², typical (adjustable)
50000 h
65,536 colors
Resistive industrial touch screen

Windows CE 6.0

Atom™ 1.6 GHz Celeron® M 1.01 GHz

1 GB DDR

CompactFlash®, 2 GB

COM 1 (RS-232), 1x VGA, 4x USB, 2x CompactFlash®

452 mm
356.5 mm
10 mm

424 mm
329.5 mm
99 mm

IP65 (front), IP20 (back)

-20 °C ... 50 °C

Installation in front plate

DIN EN 60068-2-6

15g, 11 ms in accordance with IEC 60068-2-27

Ordering data

Type	Order No.	Pcs. / Pkt.
TP 5170T	2700623	1
TP 5170C	2701721	1

Accessories

TOUCH PEN	2701379	1
2 GB USB STICK	2701382	1
VL PANEL MOUNTING KIT	2913159	1

Touch panels

HMI devices for maritime applications are the reliable and robust solution for demanding applications on ships. The devices are specifically tested and approved for ship-building.

Your advantages:

- Tested quality - certified according to GL, LR, BV, DNV, and ABS
- Flexible communication, even with third-party systems, thanks to numerous drivers
- Save costs and increase service life, thanks to LED backlighting that can be adjusted directly via buttons
- Increase system availability, thanks to temperature and voltage monitoring
- Save costs for acoustic signaling devices: integrated buzzer
- Global use: additional fonts are easy to install
- Cost-effective solution, since there are no additional costs for SCADA runtime: unlimited runtime license for VISU+ RT and AX OPC SERVER included

Notes:

1) EMC: Class A product, see page 553



17.8 cm (7") TFT color display



Technical data

Display data	
Display	17.8 cm/7" TFT active
Monitor resolution	800 x 480 Pixel (WVGA)
Display lighting type	CCFL
Brightness	400 cd/m ² , typical (adjustable)
Display backlight MTBF	50000 h
Color spectrum	65,536 colors
Touch screen	Resistive industrial touch screen
Computer data	
Operating systems	Windows CE 5.0
Processor	RISC ARM9™ CPU ; 200 MHz
Main memory	64 Mbyte SDRAM
Data memory	32 Mbyte flash memory
Interfaces	2x USB Host 2.0
External dimensions	
Width	203 mm
Height	165 mm
Depth	5 mm
Installation dimensions	
Width	195 mm
Height	157 mm
Installation depth	56 mm
General data	
Degree of protection	IP65 (front), IP20 (back)
Ambient temperature (operation)	0 °C ... 50 °C
Mounting type	Installation in front plate
Vibration (operation)	DIN EN 60068-2-6
Shock	DIN EN 60068-2-27

Ordering data

Type	Order No.	Pcs. / Pkt.
TP 07T/M 201 ¹⁾	2913234	1

Accessories

Stylus for touch screens	TOUCH PEN	2701379	1
USB flash memory	2 GB USB STICK	2701382	1
CMOS battery	HMI BATTERY	2701383	1
Mounting kit, including hardware for installation	HMI SCB MOUNTING KIT 6	2701385	1
- Panel installation	7" DISPLAY PROTECTIVE FOIL	2701374	1
Protective foil for touch screen			



26.4 cm (10.4") TFT color display



30.7 cm (12.1") TFT color display



38.1 cm (15") color TFT display



Technical data
26.4 cm/10.4" TFT active 640 x 480 Pixel (VGA) LED 350 cd/m ² , typical (adjustable) 50000 h 65,536 colors Resistive industrial touch screen
Windows CE 5.0 Xscale® PXA320, 806 MHz 64 Mbyte SDRAM 1 GB flash memory 2x USB Host 1.1, 1x Compact Flash®
328 mm 265 mm 5 mm
303 mm 238 mm 57 mm
IP65 (front), IP20 (back) 0 °C ... 50 °C Installation in front plate DIN EN 60068-2-6 DIN EN 60068-2-27

Technical data
30.7 cm/12.1" TFT active 800 x 600 Pixel (SVGA) LED 300 cd/m ² , typical (adjustable) 50000 h 65,536 colors Resistive industrial touch screen
Windows CE 5.0 Xscale® PXA320, 806 MHz 64 Mbyte SDRAM 1 GB flash memory 2x USB Host 1.1, 1x Compact Flash®
340 mm 285 mm 5 mm
315 mm 259 mm 62 mm
IP65 (front), IP20 (back) 0 °C ... 50 °C Installation in front plate DIN EN 60068-2-6 DIN EN 60068-2-27

Technical data
38.1 cm/15" TFT active 1024 x 768 Pixel (XGA) LED 480 cd/m ² 50000 h 256 colors Resistive industrial touch screen
Windows CE 5.0 Xscale® PXA320, 806 MHz 64 Mbyte SDRAM 1 GB flash memory 2x USB Host 1.1, 1x Compact Flash®
400 mm 338 mm 5 mm
373 mm 312 mm 62 mm
IP65 (front), IP20 (back) 0 °C ... 50 °C Installation in front plate DIN EN 60068-2-6 DIN EN 60068-2-27

Ordering data		
Type	Order No.	Pcs. / Pkt.
TP 10T/M 201')	2913247	1

Ordering data		
Type	Order No.	Pcs. / Pkt.
TP 12T/M 201')	2913250	1

Ordering data		
Type	Order No.	Pcs. / Pkt.
TP 15T/M 201')	2913263	1

Accessories		
TOUCH PEN	2701379	1
2 GB USB STICK	2701382	1
HMI BATTERY	2701383	1
HMI SCB MOUNTING KIT 8	2701387	1
10.4" DISPLAY PROTECTIVE FOIL	2701376	1

Accessories		
TOUCH PEN	2701379	1
2 GB USB STICK	2701382	1
HMI BATTERY	2701383	1
HMI SCB MOUNTING KIT 8	2701387	1
12.1" DISPLAY PROTECTIVE FOIL	2701377	1

Accessories		
TOUCH PEN	2701379	1
2 GB USB STICK	2701382	1
HMI BATTERY	2701383	1
HMI SCB MOUNTING KIT 8	2701387	1
15.1" DISPLAY PROTECTIVE FOIL	2701378	1

Box PC for DIN rail mounting

Box PCs are compact, easy to maintain, and powerful. They impress above all in sophisticated applications such as the measurement, control, and testing of process and machine data or distributed visualizations in conjunction with remote monitors. The numerous mounting options and scalable performance make box PCs the ideal platform for machine building and systems manufacturing.

Your advantages:

- High system availability, thanks to a fanless design which is suitable for industrial applications and the absence of moving parts
- Versatile use, thanks to various mounting options, e.g., on the DIN rail
- Energy-efficient Intel® ATOM™ processors
- Large-scale compatibility, thanks to open IT standards, numerous interfaces and operating systems
- Particularly easy to maintain, thanks to easily accessible components in the IPC housing
- Can be used in harsh environments, thanks to the extended temperature range (-40°C to +65°C) and shock resistance up to 20g

Additional features:

- Configurable based upon customer requirements
- One CF card slot with option for industrial CompactFlash up to 32 GB (no HDD support)
- System protection through the use of embedded operating systems

Notes:

1) EMC: Class A product, see page 553



Box PC with extended temperature range

Computer data

Operating systems
Processor (configuration option)
Main memory (configuration option)
Data memory (configuration option)
Interfaces

Slots

Monitor output
Network
Power supply unit

General data

Degree of protection
Ambient temperature (operation)
Permissible humidity (operation)
Mounting type
Vibration (operation)
Shock

Technical data

Windows Embedded Standard 2009
Atom™ 1.1 GHz Z510PT
1 GB DDR2 SODIMM
CompactFlash®
COM 1 (RS-232/ RS-422/ RS-485 selectable), 6x USB, 1x VGA

None
VGA
2x Ethernet (10/100/1000 Mbps), RJ45
24 V DC ±20%

IP20
-40 °C ... 65 °C
0% ... 95% (no condensation)
Wall or DIN rail
DIN EN 60068-2-6
20g, 11 ms in accordance with IEC 60068-2-27

Ordering data

Type	Order No.	Pcs. / Pkt.
VL BPC MINI	2700773	1

Accessories

Type	Order No.	Pcs. / Pkt.
VL 1 GB CF	2913155	1
VL 2 GB CF	2913156	1
VL 4 GB CF	2913157	1
VL 8 GB CF	2913158	1

Description

Industrial computer

CompactFlash® card

- 1 GB
- 2 GB
- 4 GB
- 8 GB



Configurable box PC

N



Box PC

N

Technical data
Windows Embedded Standard 7 Atom™ 1.66 GHz N455 2 GB DDR3 SODIMM CompactFlash® 1x COM (RS-232/ RS-422/ RS-485 selectable), 2x COM (RS-232), 4x USB, 1x VGA None VGA 2x Ethernet (10/100/1000 Mbps), RJ45 24 V DC ±20%
IP20 0 °C ... 50 °C 5% ... 95% Wall or DIN rail DIN EN 60068-2-6 15g, 11 ms in accordance with IEC 60068-2-27

Ordering data		
Type	Order No.	Pcs. / Pkt.
VL BPC 1000 ¹⁾	2701291	1

Accessories		
VL 1 GB CF	2913155	1
VL 2 GB CF	2913156	1
VL 4 GB CF	2913157	1
VL 8 GB CF	2913158	1

Technical data
No operating system Atom™ 1.66 GHz N455 2 GB DDR3 SODIMM Empty CompactFlash® slot 1x COM (RS-232/ RS-422/ RS-485 selectable), 2x COM (RS-232), 4x USB, 1x VGA None VGA 2x Ethernet (10/100/1000 Mbps), RJ45 24 V DC ±20%
IP20 0 °C ... 50 °C 5% ... 95% Wall mount DIN EN 60068-2-6 15g, 11 ms in accordance with IEC 60068-2-27

Ordering data		
Type	Order No.	Pcs. / Pkt.
VL BPC 1001 ¹⁾	2701290	1

Accessories		
VL 1 GB CF	2913155	1
VL 2 GB CF	2913156	1
VL 4 GB CF	2913157	1
VL 8 GB CF	2913158	1

Industrial PCs

Box PCs for “book” and wall mounting

The box PCs for “book” and wall mounting offer all the technical features and functions of DIN rail box PCs.

Additional features:

- Energy-efficient Intel® Atom™, Celeron® M and Core™2 Duo processors
- Mounting in “book” form or wall mounting
- Easily removable HDD (hard disk drive) and SSD (solid state drive)
- Large-scale compatibility, thanks to open IT standards, numerous interfaces and operating systems
- Two CF card slots with option for industrial CompactFlash up to 32 GB
- Optional expansion slots for installation of PCI cards

Notes:

1) Configuration options can affect the operating temperature. See user manual for details.



Box PC with or without PCI



Computer data	Atom™ 1.6 GHz N270
Processor (configuration option)	Celeron® M 1.01 GHz
	Core™2 Duo 1.5 GHz
Main memory (configuration option)	512 MB DDR SODIMM
	1 GB DDR SODIMM
	2 GB DDR SODIMM
	3 GB DDR SODIMM
Data memory (configuration option)	2.5 in. SATA hard drive
	2.5 in. SATA solid-state drive
Optical drive (configuration option)	DVD-RW
Interfaces	COM 1 (RS-232), 1x VGA, 4x USB, 2x CompactFlash®
Slots	2x PCI
Monitor output	VGA, DVI-D
Network	2x Ethernet (10/100/1000 Mbps), RJ45
Power supply unit	24 V DC ±20%
General data	
Degree of protection	IP65 (front), IP20 (back)
Ambient temperature (operation)	-20 °C ... 55 °C¹)
Permissible humidity (operation)	5% ... 95% (no condensation)
Mounting type	Panel mount for control cabinet, wall mount, or bookshelf mount
Vibration (operation)	DIN EN 60068-2-6
Shock	15g, 11 ms in accordance with IEC 60068-2-27

Ordering data		
Type	Order No.	Pcs. / Pkt.
VALUELINE IPC	2913108	1

Accessories			
Mounting kit, including hardware for installation	VL BOOKSHELF MOUNTING KIT	2913160	1
	VL BOOKSHELF MOUNTING KIT/EXPANSION	2913164	1
Removable hard drive tray	HDD TRAY KIT	2913185	1
2.5" SATA solid state drive kit, including tray	VL 16 GB SSD (SLC) KIT	2913199	1
	VL 32 GB SSD (SLC) KIT	2913200	1
CompactFlash® card	VL 512 MB CF	2913154	1
	VL 1 GB CF	2913155	1
	VL 2 GB CF	2913156	1
	VL 4 GB CF	2913157	1
	VL 8 GB CF	2913158	1

Box PCs for “book” and wall mounting

The latest generation of box PCs for “book” and wall mounting offer maximum computing capacity thanks to their powerful Intel® Core™ i7 processors. In addition, the box PC does not require an internal fan – cooling is ensured with just one external convection fan.

Additional features:

- Energy efficient and powerful Intel® i7 1.33 GHz and i7 2.53 GHz Core processors.
- Mounting in “book” form or wall mounting
- Easily removable HDD (hard disk drive) and SSD (solid state drive)
- One CF card slot with option for industrial CompactFlash up to 32 GB (no HDD support)

Notes:

- 1) EMC: Class A product, see page 553



Box PC with Intel® i7 technology

Computer data

Processor (configuration option)

Main memory (configuration option)

Data memory (configuration option)

Interfaces

Monitor output

Network

Power supply unit

General data

Degree of protection

Ambient temperature (operation)

Permissible humidity (operation)

Mounting type

Vibration (operation)

Shock

Description

Industrial computer, high performance with Intel® i7 processor

Mounting kit, including hardware for installation

- For bookshelf installation

- For wall installation

Removable hard drive tray

2.5" SATA HDD kit, including tray

- 250 GB

- 320 GB

2.5" SATA solid state drive kit, including tray

- 80 GB

- 160 GB

CompactFlash® card

- 1 GB

- 2 GB

- 4 GB

- 8 GB

Technical data

Intel® Core™ i7-660UE (4 MB L2 cache, 1.33 GHz)
Intel® Core™ i7-610E (4 MB L2 cache, 2.53 GHz)

2 GB DDR3-1066 SODIMM
4 GB DDR3-1066 SODIMM
8 GB DDR3-1066 SODIMM

2.5 in. SATA hard drive

2.5 in. SATA solid-state drive

CompactFlash®

COM 1 (RS-232), 1x DVI-I, 4x USB, 1x Compact Flash®

DVI-I

2x Ethernet (10/100/1000 Mbps), RJ45

24 V DC ±20%

IP65 (front), IP20 (back)

0 °C ... 45 °C

5% ... 95% (no condensation)

Panel mount for control cabinet, wall mount, or bookshelf mount

DIN EN 60068-2-6

15g, 11 ms in accordance with IEC 60068-2-27

Ordering data

Type	Order No.	Pcs. / Pkt.
VL IPC P7000 ¹⁾	2701127	1

Accessories

VL BOOKSHELF MOUNTING KIT	2913160	1
VL WALL MOUNTING KIT	2913161	1
VL I7 HDD TRAY	2701015	1
VL I7 250 GB HDD KIT	2701011	1
VL I7 320 GB HDD KIT	2701012	1
VL I7 80 GB SSD KIT	2701013	1
VL I7 160 GB SSD KIT	2701014	1
VL 1 GB CF	2913155	1
VL 2 GB CF	2913156	1
VL 4 GB CF	2913157	1
VL 8 GB CF	2913158	1

Monitors with touch function

Monitors with touch function are the ideal extension to the industrial PC: operation and monitoring without mouse and keyboard. The robust LCD devices can be used directly on the machine, e.g., as a remote operating solution. Thanks to their numerous interfaces, they provide the best possible connection to your industrial PC.

Your advantages:

- Intuitive operation without mouse or keyboard, thanks to touch function
- High shock resistance and electromagnetic compatibility, thanks to robust housing suitable for industrial applications
- Large-scale compatibility, thanks to open IT standards and numerous interfaces
- Individual solutions, thanks to customer-specific hardware adaptations

Additional features:

- Monitors in various display sizes for connection to any industrial PC with VGA or DVI port
- Optional front USB interface provides additional connection options for I/O devices



30.7 cm (12.1") touch screen

Display data

Display
Monitor resolution
Display lighting type
Brightness
Display backlight MTBF
Touch screen

General data

Degree of protection
Ambient temperature (operation)
Permissible humidity (operation)
Mounting type
Vibration (operation)
Shock

Technical data

30.7 cm/12.1" TFT active
800 x 600 Pixel (SVGA)
CCFL
400 cd/m², typical (adjustable)
> 50000 h
Resistive industrial touch screen

IP65 (front), IP20 (back)
0 °C ... 55 °C
5% ... 95%
Panel cutout or VESA mount
DIN EN 60068-2-6
15g, 11 ms in accordance with IEC 60068-2-27

Description

Flat panel monitor with resistive touch screen

- Without front USB port

Flat panel monitor with resistive touch screen

- With front USB port

Mounting kit, including hardware for installation

- Panel installation
- Panel installation for 15- and 17-in. displays in heavier gauge panels

Protective cover for 15-in touchscreen

Ordering data

Type	Order No.	Pcs. / Pkt.
VL FPM 12	2913015	1
VL FPM 12U	2913016	1

Accessories

VL PANEL MOUNTING KIT	2913159	1
VL PANEL+ MOUNTING KIT	2701177	1



38.1 cm (15") touch screen



43.2 cm (17") touch screen



48 cm (19") touch screen

Technical data		
38.1 cm/15" TFT active 1024 x 768 Pixel (XGA) CCFL 350 cd/m ² , typical (adjustable) > 50000 h Resistive industrial touch screen		
IP65 (front), IP20 (back) 0 °C ... 55 °C 5% ... 95% Panel cutout or VESA mount DIN EN 60068-2-6 15g, 11 ms in accordance with IEC 60068-2-27		
Ordering data		
Type	Order No.	Pcs. / Pkt.
VL FPM 15	2913017	1
VL FPM 15U	2913018	1
Accessories		
VL PANEL MOUNTING KIT	2913159	1
VL PANEL+ MOUNTING KIT	2701177	1
VL 15" DISPLAY PROTECTIVE FOIL	2913165	1

Technical data		
43.2 cm/17" TFT active 1280 x 1024 Pixel (SXGA) CCFL 350 cd/m ² , typical (adjustable) > 50000 h Resistive industrial touch screen		
IP65 (front), IP20 (back) 0 °C ... 55 °C 5% ... 95% Panel cutout or VESA mount DIN EN 60068-2-6 15g, 11 ms in accordance with IEC 60068-2-27		
Ordering data		
Type	Order No.	Pcs. / Pkt.
VL FPM 17	2913019	1
VL FPM 17U	2913020	1
Accessories		
VL PANEL MOUNTING KIT	2913159	1
VL PANEL+ MOUNTING KIT	2701177	1

Technical data		
48.3 cm/19" TFT active 1280 x 1024 Pixel (SXGA) CCFL 300 cd/m ² , typical (adjustable) > 50000 h Resistive industrial touch screen		
IP65 (front), IP20 (back) 0 °C ... 55 °C 5% ... 95% Panel cutout or VESA mount DIN EN 60068-2-6 15g, 11 ms in accordance with IEC 60068-2-27		
Ordering data		
Type	Order No.	Pcs. / Pkt.
VL FPM 19U	2913021	1
Accessories		
VL PANEL MOUNTING KIT	2913159	1
VL PANEL+ MOUNTING KIT	2701177	1

The EL 1000 series consists of configurable embedded panel PCs with widescreen display and appropriate design. When it comes to automating simple applications in restricted spaces, they are the ideal solution: narrow, fanless, and with comprehensive functions. Depending on your requirements, use Intel® Atom™ processors or – for graphics-intensive applications – processors from the AMD G series.

Additional features:

- Front plate made from anodized aluminum
- Can be configured according to customer requirements
- Widescreen displays from 7" to 15.4"
- With Windows Embedded Standard 7 as an option



17.8 cm (7") widescreen display

Display data
Display
Monitor resolution
Display lighting type
Brightness
Display backlight MTBF
Touch screen
Computer data
Processor (configuration option)
Main memory (configuration option)
Data memory (configuration option)
Optical drive (configuration option)
Interfaces
Slots
Monitor output
Network
Power supply unit
General data
Degree of protection
Ambient temperature (operation)
Permissible humidity (operation)
Mounting type
Vibration (operation)
Shock

Technical data
17.8 cm/7" TFT active
800 x 480 Pixel (WVGA)
LED
350 cd/m ² typical (adjustable)
40000 h
Resistive industrial touch screen
Atom™ 1.6 GHz Z530
AMD Embedded G-Series (T40R), 1.0 GHz
1 GB DDR2 RAM
2 GB DDR3 RAM
Flash SSD 8 GB
Flash SSD 16 GB
Flash SSD 32 GB
None
4 x USB host 2.0
SD card
None
2x Ethernet (10/100/1000 Mbps), RJ45
24 V DC +/- 20%
IP65 (front), IP20 (back)
0 °C ... 50 °C
20% ... 85% (no condensation)
Panel PC for mounting in the front panel
DIN EN 60068-2-6
DIN EN 60068-2-27

Description
Panel PC

Ordering data		
Type	Order No.	Pcs. / Pkt.
EL PPC7 1000	2701481	1

Mounting kit, including hardware for installation
- Panel installation
Stylus for touch screens
Protective foil for touch screen

Accessories		
HMI SCB MOUNTING KIT 4	2701384	1
TOUCH PEN	2701379	1
7" DISPLAY PROTECTIVE FOIL	2701374	1

N



22.9 cm (9") widescreen display

N



30.5 cm (12.1") widescreen display

N



39.05 cm (15.4") widescreen display

Technical data
22.9 cm/9" TFT active 800 x 480 Pixel (WVGA) LED 360 cd/m ² typical (adjustable) 70000 h Resistive industrial touch screen
Atom™ 1.6 GHz Z530 AMD Embedded G-Series (T40R), 1.0 GHz 1 GB DDR2 RAM 2 GB DDR3 RAM Flash SSD 8 GB Flash SSD 16 GB Flash SSD 32 GB None 4 x USB host 2.0 SD card None 2x Ethernet (10/100/1000 Mbps), RJ45 24 V DC +/- 20%
IP65 (front), IP20 (back) 0 °C ... 50 °C 20% ... 85% (no condensation) Panel PC for mounting in the front panel DIN EN 60068-2-6 DIN EN 60068-2-27

Ordering data		
Type	Order No.	Pcs. / Pkt.
EL PPC9 1000	2701482	1

Accessories		
HMI SCB MOUNTING KIT 6	2701385	1
TOUCH PEN	2701379	1
9" DISPLAY PROTECTIVE FOIL	2701375	1

Technical data
30.5 cm/12" TFT active 1280 x 800 Pixel (WXGA) LED 320 cd/m ² typical (adjustable) 50000 h Resistive industrial touch screen
Atom™ 1.6 GHz Z530 AMD Embedded G-Series (T40R), 1.0 GHz 1 GB DDR2 RAM 2 GB DDR3 RAM Flash SSD 8 GB Flash SSD 16 GB Flash SSD 32 GB None 4 x USB host 2.0 SD card None 2x Ethernet (10/100/1000 Mbps), RJ45 24 V DC +/- 20%
IP65 (front), IP20 (back) 0 °C ... 50 °C 20% ... 85% (no condensation) Panel PC for mounting in the front panel DIN EN 60068-2-6 DIN EN 60068-2-27

Ordering data		
Type	Order No.	Pcs. / Pkt.
EL PPC12 1000	2701484	1

Accessories		
HMI SCB MOUNTING KIT 8	2701387	1
TOUCH PEN	2701379	1

Technical data
39.05 cm/15.4" TFT active 1280 x 800 Pixel (WXGA) LED 360 cd/m ² typical (adjustable) 50000 h Resistive industrial touch screen
Atom™ 1.6 GHz Z530 AMD Embedded G-Series (T40R), 1.0 GHz 1 GB DDR2 RAM 2 GB DDR3 RAM Flash SSD 8 GB Flash SSD 16 GB Flash SSD 32 GB None 4 x USB host 2.0 SD card None 2x Ethernet (10/100/1000 Mbps), RJ45 24 V DC +/- 20%
IP65 (front), IP20 (back) 0 °C ... 50 °C 20% ... 85% (no condensation) Panel PC for mounting in the front panel DIN EN 60068-2-6 DIN EN 60068-2-27

Ordering data		
Type	Order No.	Pcs. / Pkt.
EL PPC15 1000	2701485	1

Accessories		
HMI SCB MOUNTING KIT 8	2701387	1
TOUCH PEN	2701379	1

Panel PCs

Panel PCs combine the advantages of a modern industrial PC with the operation and monitoring functions of a touch monitor. They are designed for installation in the front of the control cabinet or for use at field level. This means that you benefit from high-performance PC technology directly on site.

Your advantages:

- High system availability, thanks to a fanless design which is suitable for industrial applications and the absence of moving parts
- Processor performance suited to the application: with energy-efficient Intel® Core™ i7, Intel® Core™ 2 Duo or Intel® Atom™ processors
- Operating systems for every application, such as Windows XP, Windows 7, Windows Embedded Standard 2009 or Windows Embedded Standard 7
- Individual solutions thanks to customer-specific adaptations to hardware and software
- Particularly easy to maintain thanks to easily accessible components in the appropriately designed PC housing
- Large-scale compatibility, thanks to open IT standards and numerous interfaces
- Display diagonals from 12" to 24"
- Optional expansion slots for installation of PCI cards

Notes:

- 1) Configuration options can affect the operating temperature. See user manual for details.
- 2) EMC: Class A product, see page 553



Configurable panel PC



Technical data

Display data	
Display (configuration option)	Without 30.7 cm/12.1" TFT active 38.1 cm/15" TFT active 43.2 cm/17" TFT active 48.3 cm/19" TFT active 60.9 cm/24" - TFT active
Computer data	
Processor (configuration option)	Atom™ 1.6 GHz N270 Celeron® M 1.01 GHz Core™2 Duo 1.5 GHz 512 MB DDR SODIMM 1 GB DDR SODIMM 2 GB DDR SODIMM 3 GB DDR SODIMM 2.5 in. SATA hard drive 2.5 in. SATA solid-state drive
Main memory (configuration option)	
Data memory (configuration option)	
Optical drive (configuration option)	DVD-RW COM 1 (RS-232), 1x VGA, 4x USB, 2x CompactFlash®
Interfaces	
Slots	2x PCI VGA, DVI-D 2x Ethernet (10/100/1000 Mbps), RJ45 24 V DC ±20%
Monitor output	
Network	
Power supply unit	
General data	
Degree of protection	IP65 (front), IP20 (back)
Ambient temperature (operation)	-20 °C ... 55 °C ¹⁾
Permissible humidity (operation)	5% ... 95% (no condensation)
Mounting type	Panel mount for control cabinet, wall mount, or bookshelf mount
Vibration (operation)	DIN EN 60068-2-6
Shock	15g, 11 ms in accordance with IEC 60068-2-27

Ordering data

Type	Order No.	Pcs. / Pkt.
VALUELINE IPC	2913108	1

Accessories

VL PANEL MOUNTING KIT	2913159	1
VL PANEL+ MOUNTING KIT	2701177	1
VL 15" DISPLAY PROTECTIVE FOIL	2913165	1

Description
Industrial computer
Industrial computer , high performance with Intel® i7 processor
Mounting kit , including hardware for installation
- Panel installation
- Panel installation for 15- and 17-in. displays in heavier gauge panels
Protective cover for 15-in touchscreen



**Configurable panel PC
with Intel® i7 technology**

Technical data

Without
30.7 cm/12.1" TFT active
38.1 cm/15" TFT active
43.2 cm/17" TFT active
48.3 cm/19" TFT active
60.9 cm/24" - TFT active

Intel® Core™ i7-660UE (4 MB L2 cache, 1.33 GHz)
Intel® Core™ i7-610E (4 MB L2 cache, 2.53 GHz)

2 GB DDR3-1066 SODIMM
4 GB DDR3-1066 SODIMM
8 GB DDR3-1066 SODIMM

2.5 in. SATA hard drive
2.5 in. SATA solid-state drive
CompactFlash®
None
COM 1 (RS-232), 1x DVI-I, 4x USB, 1x Compact Flash®

None
DVI-I
2x Ethernet (10/100/1000 Mbps), RJ45
24 V DC ±20%

IP65 (front), IP20 (back)
0 °C ... 45 °C
5% ... 95% (no condensation)
Panel mount for control cabinet, wall mount, or bookshelf mount

DIN EN 60068-2-6
15g, 11 ms in accordance with IEC 60068-2-27

Ordering data

Type	Order No.	Pcs. / Pkt.
VL IPC P7000 ²⁾	2701127	1

Accessories

VL PANEL MOUNTING KIT	2913159	1
VL PANEL+ MOUNTING KIT	2701177	1
VL 15" DISPLAY PROTECTIVE FOIL	2913165	1

IP65 panel PCs

The panel PCs of the DL 1000 series combine high-performance technology and attractive design. They are narrow, feature IP65 protection, multi-touch capability, and are always close to the action as they can be installed quickly and easily directly on the machine.

Thanks to their fanless and energy-efficient design, they are the ideal solution for future operating concepts in industrial systems: easy maintenance, custom configuration, and robust.

Additional features:

- Single or multi-touch screen
- Energy-efficient Intel® ATOM™ E series processors
- Can be configured individually
- Fully enclosed housing with IP65 protection
- Extended temperature range of -20°C to +55°C
- User-friendly handling thanks to the attractive and practical industrial design
- Easy access to all important components

Notes:

¹⁾ Configuration options can affect the operating temperature. See user manual for details.



**Panel PC in IP65,
37.8 cm (15") display**

Display data

Display
Monitor resolution
Display lighting type
Brightness
Display backlight MTBF
Touch screen

Computer data

Processor (configuration option)
Main memory (configuration option)
Data memory (configuration option)
Optical drive (configuration option)
Interfaces

Slots
Monitor output
Network
Power supply unit

General data

Degree of protection
Ambient temperature (operation)
Permissible humidity (operation)
Mounting type
Vibration (operation)
Shock

Technical data

37.8 cm/15 in. TFT
1024 x 768 Pixel (XGA)
LED
400 cd/m², typical (adjustable)
50000 h
Resistive industrial touch screen

Atom™ 1.6 GHz E680T
2 GB DDR2 800
2.5 in. SATA hard drive
None
1x COM selectable (RS-232, RS-485, RS-422), 5x USB 2.0,
1x audio
None
None
2x Ethernet (10/100/1000 Mbps), RJ45
24 V DC ±20%

IP65
-20 °C ... 55 °C¹⁾
5% ... 95%
VESA MIS-D (100 x 100)
1g according to EN 60068-2-6
15g, 11 ms in accordance with IEC 60068-2-27

Ordering data**Description**

IPC with IP65 protection with touch screen, enclosed housing

IPC with IP65 protection with touch screen, enclosed housing

Type	Order No.	Pcs. / Pkt.
DL PPC15 1000	2701665	1



**Panel PC in IP65,
37.8 cm (15") display
Multi-touch**

Technical data

37.8 cm/15 in. TFT
1024 x 768 Pixel (XGA)
LED
400 cd/m², typical (adjustable)
50000 h
Resistive industrial touch screen

Atom™ 1.6 GHz E680T
2 GB DDR2 800
2.5 in. SATA hard drive
None
1x COM selectable (RS-232, RS-485, RS-422), 5x USB 2.0,
1x audio
None
None
2x Ethernet (10/100/1000 Mbps), RJ45
24 V DC ±20%

IP65
-20 °C ... 55 °C¹⁾
5% ... 95%
VESA MIS-D (100 x 100)
1g according to EN 60068-2-6
15g, 11 ms in accordance with IEC 60068-2-27

Ordering data

Type	Order No.	Pcs. / Pkt.
DL PPC15M 1000	2701666	1

IP65 panel PCs

The compact and robust panel PCs with IP65 protection allow you to use reliable PC technology directly on the machine. Thanks to WLAN capability, the devices can be installed without any time-consuming or costly wiring – a huge advantage for machines used in various locations. High-performance wireless technology allows you to transmit even large volumes of data reliably and quickly.

Additional features:

- Optimum network connection by means of Gigabit Ethernet or WLAN
- Energy-efficient Intel® ATOM™ processors
- High system availability, thanks to a fanless design which is suitable for industrial applications and the absence of moving parts
- Fully enclosed housing with IP65 protection
- Extended temperature range of -20°C to +55°C
- Comprehensive range of accessories including practical brackets that allow you to install your panel PC in a space-saving and reliable manner.

Notes:

1) EMC: Class A product, see page 553



20.3 cm (8") display

Display data

Display
Monitor resolution
Display lighting type
Brightness
Display backlight MTBF
Touch screen

Computer data

Processor (configuration option)

Main memory (configuration option)

Data memory (configuration option)

Interfaces

Optical interfaces
Graphics card
Network
Power supply unit

External dimensions

Width
Height
Depth

General data

Degree of protection
Ambient temperature (operation)
Permissible humidity (operation)
Mounting type
Vibration (operation)
Shock

Description

Panel PC in IP65 with touchscreen, configurable

Panel PC with IP65 protection with touch screen, sunlight readable display, closed housing

Connector

External power supply unit

Table stand

Support bracket left/right

Bracket connection adapter

Bracket according to VESA standard

Technical data

20.3 cm/8" TFT active
800 x 480 Pixel (WVGA)
LED
400 cd/m², typical (adjustable)
> 50000 h
Resistive industrial touch screen

Atom™ 1.1 GHz Z510

1 GB DDR2 RAM
2 GB DDR2 RAM
Flash SSD 1 GB
Flash SSD 2 GB
Flash SSD 4 GB
Flash SSD 8 GB

COM 1 (RS-232), 3 x USB 2.0, 1 x on the front (can be deactivated via software), 1 x PS/2 keyboard/mouse

Wireless LAN
Intel® SCH US15W with integrated graphics
2x Ethernet (10/100/1000 Mbit), RJ45
24 V DC +/- 20%

254 mm
182 mm
62 mm

IP65
-20 °C ... 55 °C
10% ... 85% (no condensation)
Depends on the configuration
DIN EN 60068-2-6
DIN EN 60068-2-27

Ordering data

Type	Order No.	Pcs. / Pkt.
VMT 3008 ¹⁾	2913852	1

Accessories

FMC 1,5/ 4-STF-3,81 BD:PE-24V	1701307	50
VMT 300X EXT PS	2913881	1
VMT TISCHFUSS	2900946	1
VMT HALTEWINKEL LI/RE	2900933	1
VMT GALGENANSCHLUSSADAPTER	2900962	1
VMT HALTERUNG VESA	2900959	1



26.4 cm (10.4")
Sunlight readable display



30.7 cm (12.1")
Sunlight readable display



38.1 cm (15") display

Technical data	
VMT 3010	VMT 3010 EXP SUN ¹⁾
26.4 cm/10.4" TFT active 1024 x 768 Pixel (XGA) LED 400 cd/m ² , typical (adjustable) Optical bonding > 50000 h Resistive industrial touch screen	
Atom™ 1.1 GHz Z510 Atom™ 1.6 GHz Z530 1 GB DDR2 RAM 2 GB DDR2 RAM Flash SSD 1 GB Flash SSD 2 GB Flash SSD 4 GB Flash SSD 8 GB 2.5" SSD 8 GB 2.5" SSD 16 GB 2.5" SSD 32 GB 2.5" HDD, min. 80 GB, 24 x 7 Automotive	Atom™ 1.6 GHz Z530 2 GB DDR2 RAM 2.5" HDD, min. 80 GB, 24 x 7 Automotive
COM 1 (RS-232), 3 x USB 2.0, 1 x on the front (can be deactivated via software), 1 x PS/2 keyboard/mouse	
Wireless LAN Intel® SCH US15W with integrated graphics 2x Ethernet (10/100/1000 MBit), RJ45 24 V DC +/- 20%	
294 mm 244 mm 62 mm	
IP65 -20 °C ... 55 °C 10% ... 85% (no condensation) Depends on the configuration DIN EN 60068-2-6 DIN EN 60068-2-27	

Ordering data		
Type	Order No.	Pcs. / Pkt.
VMT 3010	2701003	1
VMT 3010 EXP SUN ¹⁾	2700969	1

Accessories		
MC 1,5/ 4-STF-3,81 BD:PE-24VSO	1771240	50
VMT 301X EXT PS	2913933	1
VMT TISCHFUSS	2900946	1
VMT HALTEWINKEL LI/RE	2900933	1
VMT GALGENANSCHLUSSADAPTER	2900962	1
VMT HALTERUNG VESA	2900959	1

Technical data	
VMT 3012 ¹⁾	VMT 3012 EXP SUN ¹⁾
30.7 cm/12.1" TFT active 800 x 600 Pixel (SVGA) CCFL 400 cd/m ² , typical (adjustable) Optical bonding > 50000 h Resistive industrial touch screen	
Atom™ 1.1 GHz Z510 Atom™ 1.6 GHz Z530 1 GB DDR2 RAM 2 GB DDR2 RAM Flash SSD 1 GB Flash SSD 2 GB Flash SSD 4 GB Flash SSD 8 GB 2.5" SSD 8 GB 2.5" SSD 16 GB 2.5" SSD 32 GB 2.5" HDD, min. 80 GB, 24 x 7 Automotive	Atom™ 1.6 GHz Z530 2 GB DDR2 RAM 2.5" HDD, min. 80 GB, 24 x 7 Automotive
COM 1 (RS-232), 3 x USB 2.0, 1 x on the front (can be deactivated via software), 1 x PS/2 keyboard/mouse	
Wireless LAN Intel® SCH US15W with integrated graphics 2x Ethernet (10/100/1000 MBit), RJ45 24 V DC +/- 20%	
338 mm 261 mm 62 mm	
IP65 -20 °C ... 55 °C 10% ... 85% (no condensation) Depends on the configuration DIN EN 60068-2-6 DIN EN 60068-2-27	

Ordering data		
Type	Order No.	Pcs. / Pkt.
VMT 3012 ¹⁾	2913959	1
VMT 3012 EXP SUN ¹⁾	2700878	1

Accessories		
MC 1,5/ 4-STF-3,81 BD:PE-24VSO	1771240	50
VMT 301X EXT PS	2913933	1
VMT TISCHFUSS	2900946	1
VMT HALTEWINKEL LI/RE	2900933	1
VMT GALGENANSCHLUSSADAPTER	2900962	1
VMT HALTERUNG VESA	2900959	1

Technical data	
VMT 3015 ¹⁾	VMT 3015 EXP SUN ¹⁾
38.1 cm/15" TFT active 1024 x 768 Pixel (XGA) LED 400 cd/m ² , typical (adjustable) Optical bonding > 50000 h Resistive industrial touch screen	
Atom™ 1.1 GHz Z510 Atom™ 1.6 GHz Z530 1 GB DDR2 RAM 2 GB DDR2 RAM Flash SSD 1 GB Flash SSD 2 GB Flash SSD 4 GB Flash SSD 8 GB 2.5" SSD 8 GB 2.5" SSD 16 GB 2.5" SSD 32 GB 2.5" HDD, min. 80 GB, 24 x 7 Automotive	Atom™ 1.6 GHz Z530 2 GB DDR2 RAM 2.5" HDD, min. 80 GB, 24 x 7 Automotive
COM 1 (RS-232), 3 x USB 2.0, 1 x on the front (can be deactivated via software), 1 x PS/2 keyboard/mouse	
Wireless LAN Intel® SCH US15W with integrated graphics 2x Ethernet (10/100/1000 MBit), RJ45 24 V DC +/- 20%	
400 mm 305 mm 65 mm	
IP65 -20 °C ... 55 °C 10% ... 85% (no condensation) Depends on the configuration DIN EN 60068-2-6 DIN EN 60068-2-27	

Ordering data		
Type	Order No.	Pcs. / Pkt.
VMT 3015 ¹⁾	2913674	1

Accessories		
MC 1,5/ 4-STF-3,81 BD:PE-24VSO	1771240	50
VMT 301X EXT PS	2913933	1
VMT TISCHFUSS	2900946	1
VMT HALTEWINKEL LI/RE	2900933	1
VMT GALGENANSCHLUSSADAPTER	2900962	1
VMT HALTERUNG VESA	2900959	1

Benefit from the advantages of modern networks and work with your portable industrial PC directly on site. The robust tablet PCs from Phoenix Contact are the ideal solution for performing mobile tasks and processes professionally, from both inside and outside the factory.

Your advantages:

- High system availability, thanks to a fanless design which is suitable for industrial applications and the absence of moving parts
- Energy-efficient Intel® ATOM™ or dual core processors
- Large-scale compatibility, thanks to open IT standards and numerous interfaces
- User-friendly handling thanks to the attractive and practical industrial design
- All-round protection against dust and splash water provided by IP54 housing with IP65 front
- Wireless connection via WLAN or Bluetooth
- Independence from the mains thanks to battery operation
- Comprehensive range of accessories



Tablet PC with 33.8 cm (13.3") display and Windows 7

Display data	
Display	33.8 cm/13.3" TFT active
Monitor resolution	1280 x 800 Pixel (WXGA)
Display lighting type	CCFL
Brightness	400 cd/m², typical (adjustable)
Display backlight MTBF	> 50000 h
Touch screen	Resistive industrial touch screen
Computer data	
Operating systems	Windows 7 32-bit Ultimate (multi-language)
Processor	Atom™ 1.6 GHz Z530P
Main memory	2 GB DDR2 RAM
Data memory	2.5" HDD, min. 160 Gbyte (PATA)
Interfaces	2x USB 2.0, 1x USB 2.0 recessed, WLAN 802.11 a/b/g, Bluetooth 2.0 Class 1 or Class 2
Network	1 x Ethernet (10/100/1000 Mbit), RJ45
Power supply unit	115/230 V AC/20 V DC external power supply unit
General data	
Degree of protection	IP65 (front), IP54 (back)
Ambient temperature (operation)	0 °C ... 40 °C
Permissible humidity (operation)	10% ... 85% (no condensation)
Mounting type	Mobile application

Ordering data		
Type	Order No.	Pcs. / Pkt.
TPC 6013	2700740	1

Accessories		
TPC 6013 HAND STRAP	2700613	1
TPC 6013 THREE-POINT BELT	2700614	1
TPC 6013 MECHANICAL DOCKING	2700615	1
TPC 6013 SPARE RECHARGEABLE BA	2700744	1
TPC 6013 TOUCH PENS	2700616	1
PORT REPLICATOR	2701343	1

Description
Mobile tablet PC with touch screen, enclosed housing
- Atom 1.6 GHz
- 1.2 GHz dual core
Hand strap for tablet PC
3-point belt for tablet PC
Mechanical docking station for tablet PC
Replacement battery for TPC 6013
Touch pens for tablet PC
Docking station for tablet PC
ODU to V.24 (RS-232) cable for tablet PC

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**Tablet PC with 33.8 cm (13.3") display
and Windows Embedded Standard 7**



**Tablet PC with 33.8 cm (13.3") display
and Windows XP**

Technical data
33.8 cm/13.3" TFT active 1280 x 800 Pixel (WXGA) CCFL 400 cd/m ² , typical (adjustable) > 50000 h Resistive industrial touch screen
Windows Embedded Standard 7 Atom™ 1.6 GHz Z530P 2 GB DDR2 RAM 2.5" SSD, 16 Gbytes, minimum 2x USB 2.0, 1x USB 2.0 recessed, WLAN 802.11 a/b/g, Bluetooth 2.0 Class 1 or Class 2
1 x Ethernet (10/100/1000 Mbit), RJ45 20 V/3.5 A external
IP65 (front), IP54 (back) 0 °C ... 40 °C 10% ... 85% (no condensation) Mobile application

Ordering data		
Type	Order No.	Pcs. / Pkt.
TPC 6013 S W7E	2701316	1

Accessories		
TPC 6013 HAND STRAP	2700613	1
TPC 6013 THREE-POINT BELT	2700614	1
TPC 6013 MECHANICAL DOCKING	2700615	1
TPC 6013 SPARE RECHARGEABLE BA	2700744	1
TPC 6013 TOUCH PENS	2700616	1
PORT REPLICATOR	2701343	1

Technical data
33.8 cm/13.3" TFT active 1280 x 800 Pixel (WXGA) CCFL 400 cd/m ² , typical (adjustable) > 50000 h Resistive industrial touch screen
Windows XP-Multi Dual Core™ 1.2 GHz 2 GB DDR2 RAM 2.5" HDD, min. 120 Gbyte (SATA) 2x USB 2.0, 1x USB 2.0 recessed, RS-232 to ODU plug, WLAN 802.11 a/b/g, Bluetooth 2.0 Class 1 or Class 2, 1x headphone out, 1x MIC IN, 2-megapixel autofocus camera
1x Ethernet (10/100 Mbps), RJ45 115/230 V AC/20 V DC external power supply unit
IP65 (front), IP54 (back) 0 °C ... 40 °C 10% ... 85% (no condensation) Mobile application

Ordering data		
Type	Order No.	Pcs. / Pkt.
TPC 6013 P	2700611	1

Accessories		
TPC 6013 HAND STRAP	2700613	1
TPC 6013 THREE-POINT BELT	2700614	1
TPC 6013 MECHANICAL DOCKING	2700615	1
TPC 6013 SPARE RECHARGEABLE BA	2700744	1
TPC 6013 TOUCH PENS	2700616	1
TPC 6013 CABLE ODU TO RS232	2700619	1